Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (Previously Presented) An electrochemically disbondable composition, comprising:

a polymer; and

an electrolyte, wherein the electrolyte provides

sufficient ionic conductivity to said composition to enable a faradaic reaction at a bond formed between the composition and an electrically conductive surface and allow the composition to disbond from said surface.

2-3. (Cancelled).

4. (Previously Presented) The composition of claim 1, wherein said polymer has a variable crosslink density to form regions of low crosslink density having a relatively high ionic conductivity and regions of high crosslink density having a relatively high mechanical strength.

5. (Previously Presented) The composition of claim 1, wherein said polymer includes coordination sites that are capable of solvating ions and that support the electrolyte functionality of said composition.

6. (Original) The composition of claim 5, wherein said coordination sites are selected from the group consisting of alkoxy moieties, disulfide moieties, thioalkyl moieties, nitrile moieties, and polyvinylidene fluoride moieties and derivatives thereof.

7. (Cancelled).

8. (Previously Presented) The composition of claim 1, wherein said electrolyte is localized in regions within said polymer to form a secondary phase with ionic conductivity.

9. (Original) The composition of claim 1, wherein said electrochemically disbondable composition is a phase separated material having first regions of substantially matrix functionality and second regions of substantially electrolyte functionality.

10-13. (Cancelled).

14. (Previously Presented) The composition of claim 9, wherein said electrolyte functionality comprises an ion solvating molecule that is selected from the group consisting of low molecular weight alkoxides, alcohols, alkyl carbonates, cyclic esters, nitriles, amides and ureas.

15. (Original) The composition of claim 9, wherein said phase separated material comprises a block or graft copolymer containing non-polar components and components of ionic conductivity.

16. (Previously Presented) The composition of claim 15, wherein said non-polar component of said block copolymer is selected to facilitate phase separation.

17. (Original) The composition of claim 1, further comprising a reservoir for containing curing or crosslinking agent.

18. (Original) The composition of claim 17, wherein the reservoir is selected from the group consisting of zeolites, clays and polymer gels.

19. (Previously Presented) The composition of claim 1 or 9, further comprising a salt capable of being solvated into said composition.

20. (Original) The composition of claim 19, wherein said salt is selected from the group consisting of alkali metal, alkaline earth and ammonium salts.

21. (Original) The composition of claim 19, wherein said salts include an anion selected from the group consisting of hexafluorophosphate, tetrafluoroborate, hexafluoroantimonate and perchlorate.

22. (Original) The composition of claim 19, wherein said salt is an ammonium salt and the ammonium cation is immobilized in said composition.

23. (Previously Presented) The composition of claim 1 or 9, wherein said composition has an ionic conductivity in the range of 10^{-11} S/cm to 10^{-5} S/cm.

24. (Previously Presented) The composition of claim 1 or 9, wherein said composition has an ionic conductivity in the range of 10^{-9} S/cm to 10^{-7} S/cm.

25. (Original) The composition of claim 1 or 9, further comprising an additive selected from the group consisting of pigments, corrosion inhibitors, leveling agents, gloss promoters, rubber toughenersand fillers.

26. (Original) The composition of claim 1 or 9, wherein said composition is an adhesive.

27. (Cancelled).

28. (Original) The composition of claim 1 or 9, wherein said composition is a coating.

29. (Original) The composition of claim 28, wherein said coating is resistant to delamination from a substrate to which it is applied.

30. (Previously Presented) A composition, comprising:

a curable polymeric material comprising an epoxy; and

an electrolyte located in said curable polymeric material, said electrolyte being selected from the group consisting of ion solvating molecules, oligomers and polymers, and ionomers,

wherein said curable polymeric material, when cured, can form adhesive bonds with an electrically conductive surface, said adhesive bonds having a shear strength of greater than 200 psi, and said composition has sufficient ionic conductivity to support a faradaic reaction at said electrically conductive surface, said faradaic reaction weakening said adhesive bonds.

31. (Cancelled).

32. (Original) The composition of claim 30, wherein the composition phase separates upon curing, said phase separated material having first regions of mechanical strength and second regions of ionic conductivity.

33-65. (Cancelled).

66. (Previously Presented) The composition of claim 30, wherein said curable polymeric material has an ionic conductivity in the range of 10^{-9} to 10^{-7} S/cm.

67. (Previously Presented) The composition of claim 1, wherein said composition has a shear strength greater than 200 psi.

68. (Currently Amended) An electrochemically disbondable composition bonded to a first electronically conducting surface and comprising an adhesive incorporating an electrolyte imparting sufficient ionic conductivity to said composition to support a faradaic reaction at the bond between the composition and the electronically conducting surface when a voltage is applied across the bond between the ~~between said~~ first surface and the composition ~~a second electronically conducting surface~~, thereby inducing the composition to disbond ~~disband~~ from ~~said~~ the first surface.

69. (Previously Presented) The composition of claim 68, wherein said adhesive is selected from the group consisting of epoxies, phenolics, acrylics, melamines, maleimides, polyurethanes, and combinations thereof.

70. (Previously Presented) The composition of claim 68, wherein said electrolyte is localized in regions within said polymer to form a secondary phase with ionic conductivity.

71. (Previously Presented) The composition of claim 70, wherein said electrolyte is selected from the group consisting of ion solvating molecules, oligomers, polymers, and ionomers.

72. (Previously Presented) The composition of claim 70, wherein said electrolyte comprises an ion solvating molecule that is selected from the group consisting of low molecular weight alkoxides, alcohols, alkyl carbonates, cyclic esters, nitriles, amides and ureas.

73. (Previously Presented) The composition of claim 68, further comprising a salt.

74. (Previously Presented) The composition of claim 73, wherein the salt is selected from the group consisting of alkali metal, alkaline earth, and ammonium salts.

75. (Previously Presented) The composition of claim 73, wherein the salt includes an anion selected from the group consisting of hexafluorophosphate, tetrafluoroborate, hexafluoroantimonate and perchlorate.

76. (Previously Presented) The composition of claim 73, wherein the salt is an ammonium salt and the ammonium cation is immobilized in said composition.

77. (Currently Amended) The composition of claim 68, wherein said composition has an ionic conductivity in the range of 10^{-11} S/cm to 10^{-5} S/cm ~~10-11 S/cm to 10-5 S/cm~~.

78. (New) The method of claim 1, wherein the bond is substantially weakened by application of an electrical voltage of 50 volts after less than about 60 minutes.

79. (New) The method of claim 68, wherein the bond is substantially weakened by application of an electrical voltage of 50 volts after less than about 60 minutes.